Deficiencies in the research work of Yajnadevam on deciphering Indus script

Yajnadevam, also known as Bharath Rao, is a computer scientist and cryptographer who claims to have deciphered the Indus script, an ancient writing system from the Indus Valley Civilization, through a cryptanalytic approach. His field of expertise is in cryptography and computer science. First, why did he use a pseudonym while writing a scientific paper? I have never seen any scientist using such a strategy of using a pseudonym. I am not sure what is the problem with his name. Anyhow, let's go into his research work.

What is Cryptography?

He is trying to hide his entire research work under the guise of cryptography; before going into his research paper, it is essential to understand what cryptography is and its relevance in Indus script decipherment.

Cryptography is the practice of securing communication by converting plain text into ciphertext, ensuring that only authorised parties can access the information. Derived from the Greek word "Kryptos," meaning hidden, cryptography translates to "hidden writing". It involves various algorithms and protocols to ensure data confidentiality, integrity, authentication, and non-repudiation.

Key Principles of Cryptography

Cryptography ensures confidentiality: Information can only be accessed by the intended recipient and no one else. Cryptography guarantees that information cannot be altered during storage or transmission without detection. Cryptography prevents the sender from denying their intention to send the information. Cryptography does the function of authentication: It confirms the identities of the sender and receiver, as well as the origin and destination of the data.

Cryptography protects data and communications by converting plain text into ciphertext using various techniques. Generally, it was called 'encryption' in earlier times, but in modern times, people call it cryptography. Even now, the word 'encrypted message' is commonly used. It is easy to

understand when the word 'encryption' is used. However, it becomes exotic when the word cryptography is used.

Cryptography became important during World War II; messages were sent and received back in encrypted messages. Separate machines were used to convert the regular message into an encrypted message, and other machines were used to de-encrypt the message. It was a big issue to break the codes of German messages, and Britain and America reasonably succeeded in that effort.

Now, I understand how the mind of Yajnadevam works; he is a cryptographer and applies his cryptography skills to Indus script decipherment. There is nothing wrong with that approach as long as scientific principles are applied.

Now, we should understand the mind of the Indus priest who had created these seals. He was a funeral priest, just like the modern Hindu priests involved in funeral rights. One thing you should understand is that there are separate priests for funeral ceremonies and separate for marriage and other ceremonies. Generally, funeral priests don't get much remuneration. It is a less-paying job. But in ancient times, it might have been different; funeral priests might have got reasonable remuneration because it involved sacrificing animals regularly.

The Indus priest was a simple guy making a living by funeral rights, not a cryptographer. He had to write something reasonable to him and at the same time readable to another priest so that there was some value to that seal produced. The seal probably acted like a talisman, with magical power and, at the same time, readable. If you apply cryptography, it would have been unreadable without the aid of a 'cypher'. So, in conclusion, it was just a logogram or ideogram, not a cryptogram.

At this juncture, I would like to put forth some of my experience relating to cryptography during my service period. I worked as an IRS officer for 25 years; out of those twenty-five years, I worked as an investigation officer for 10 years, that is, an officer involved in the physical raids of business establishments to search for evidence of tax evasion.

From 1990 to 2000, we encountered manual account books with code words and numbers. But after 2000, computers became widely used, and old code numbers vanished. However, modern methods of passwords and other crypto techniques have appeared.

During the physical raids on business establishments, we generally encountered manual books with codes so that business people could write down their transactions. Still, at the same time, it would not be understandable to other persons. One problem for business people is that they have to keep records of their transactions. Otherwise, they will forget the amounts involved. The human brain has limitations; it can remember to a certain extent, but beyond that, it will forget. Then it will become a problem for the business people. So, he had to maintain a physically coded record. This problem is similar to the Indus priest's; it was meaningful to him but not understandable to modern Indians. Yet, everything is not lost. It is still decipherable.

Our problem as officers was that we had to break all his codes before the end of the day. Otherwise, all our efforts would go to waste. It was like a hide-and-seek game. Invariably, we used to break their code because it was simple, not complicated; if the businessman had used the complex code, he would not be able to decode the entry. The situation was similar to that of an Indus priest. The code has to be simple at the same time and easy to recollect. I can say that working in this investigation department helped me in my efforts to decipher the Indus script.

The relevance of the above narration is that the situation was similar to that of the Indus priest. He had to write something that was known to him, and at the same time, the other priest should also be able to understand that, but the commoner could not read it. That was the game.

The approach to the Indus script should be in an easily readable code, not unreadable code, as mentioned above. However, Yajnadevam's thesis proposes a highly complex idea in the modern sense of cryptography. Just think logically: the Indus priest, a half-literate man, could write something, and another half-literate priest could read his communication, so we should also be able to read the inscriptions with minimum exertion.

Cryptography and logograms

Will the cryptography work on logographic symbols? This was my question to the AI in Google search; the answer is,

Yes, cryptography can work with logographic scripts like Chinese. The logographs represent semantic components, meaning they can be encoded and utilised in cryptographic systems like alphabets. However, the complexity of logographic scripts might present unique challenges regarding encryption and decryption processes, impacting factors like key size and readability. It's

essential to consider these aspects when implementing cryptography in such languages. Always double-check important information regarding specific cryptographic techniques.

Using cryptography in logograms is a complex process; it is even more difficult in the Indus script because it is an ideogram, not merely a logogram.

How to decrypt a cypher text?

To decrypt/decipher an encoded message, it is necessary to know the encryption used (or the encoding method or the implemented cryptographic principle). Without knowing the technique chosen by the message's sender, it is impossible to decrypt it (or decode it). Knowing the encryption (or encoding or code) is, therefore, the first step to start the decryption (or decoding) process.

Using a cryptogram is a complicated process in logographic symbols. If such a method had been used in the Indus script, decoding would have been impossible without knowing the encoding method used by the message's creator. In our case, the Indus priest was the message's sender; it is doubtful whether the Indus priest knew the problematic process of encoding it and what was the necessity for such a complicated process?

What is the name used for the encryption formula?

The word most commonly used for "encryption" is simply "encryption" itself; however, a synonym often used in technical contexts is "cypher", which refers to the algorithm used to encrypt data. Encryption means the process of converting data into a scrambled format that can only be deciphered with a secret key. A cypher is an algorithm or set of rules used to perform encryption and decryption.

I don't think any 'cypher' is used in the Indus script. It is a simple ideogram, but we are not able to read it because the context in which it was produced and the language used are unknown. If any cypher had been used, as said by Yajnadevam, it would have become indecipherable.

Occam's razor principle

William of Ockham, often simply referred to as Occam, was an English Franciscan friar, philosopher, theologian, and political writer active during the Late Middle Ages (c. 1287–1347). He is known for his contributions to scholastic thought and is regarded as one of the leading figures of that era.

Ockham is particularly famous for "Ockham's Razor," a principle suggesting that the simplest explanation is usually the best. (1)

Occam's Razor is a principle suggesting that the one that makes the fewest assumptions should be selected among competing hypotheses. Using this razor, a common-sense approach to scientific analysis emphasises simplicity and clarity in understanding complex phenomena. Researchers can arrive at more effective conclusions and solutions by prioritising straightforward explanations and minimising unnecessary variables.

I feel that Yajnadevam's thesis fails to follow the fundamental principles enunciated by the philosopher. He needs to be simple. Because complicated jargon is used, his thesis will not become the truth.

Relevance of context

We should understand that while interpreting archaeological evidence, we should interpret the object based on the context in which that archaeological object was obtained. For example, people are trying to decipher the Indus script based on the assumption that it was a metropolis of ancient times, whereas, in reality, those excavated sites were necropolises. That is why archaeologists and linguists have failed in their efforts in the past century. I observed that those Indus sites were necropolises, and I interpreted them based on that assumption, which has given good results.

I respect Pakistani historians and archaeologists for one point; they invariably insist that the place is 'Moenjo – Daro' (Place of the Dead People – graveyard), whereas Indians romanticise the cemetery as a metropolis. And try to get some illusionary stories out of those Indus seal inscriptions.

At this juncture, it is relevant to mention one thing. I developed my first website on the issue of the necropolis theory of Mohenjo Daro around 2010. That website is no longer in existence. The movie Mohenjo Daro was released in 2016, and Hrithik Roshan and Pooja Hegde starred in it. During that period, my website was blocked by Google administration for one year. I did not understand the reason behind it. I often enquired about the reason with Google administration, but they did not reply. In the meantime, the film Mohenjo Daro was released; it made some money but was not a great success.

Then, after a few months, my website was released from suspension, and I realised that the film's producer could have made a specific request to block my website to block the information that the Mohenjo Daro was a graveyard. The relevance of this discussion is that Indians are going to great

lengths to picture this graveyard as a beautiful metropolitan city. That is also the story of the film. That film is the true reflection of the Indian mind. Unfortunately, it is not so. That is why all Indian linguists and historians failed to decipher the Indus script.

Yajnadevam is one more person on the list of Indian linguists who wanted to give a romantic picture of a 'Vedic period city' to a graveyard. He does not relate the physical excavation result to his imaginary story of Rig Veda. He is out of context. He just brushes away all the excavated physical shreds of evidence; he does not explain any of the physical evidence obtained at the excavation sites.

I am not a cryptographer and have no intention of studying the mathematical calculations of cryptography. Hence, I cannot point out the deficiencies in mathematical calculation and formulas in Yjnadevam's paper. I am waiting for a mathematician or cryptographer to find the deficiencies in his cryptographic formulas and calculations created by Yajnadevam. Instead of solving a puzzle, he had made a new one. In the meantime, I will be able to point out the mistakes in his paper from the view of a common man.

Problem of linguists

The above-mentioned problem of Yajnadevam is similar to that of the other linguists involved in the Indus script decipherment work. Note that many decipherers engaged in this work are linguists, not historians or archaeologists. There were nearly 100 decipherers, and all of them failed; Yajnadevam also joined that long list.

Take the example of Iravatham Mahadevan, a retired civil service officer who worked more as a linguist than a historian. Surprisingly, historians and archaeologists do not make wild guesses, whereas linguists do. The linguist's interpretations are out of context. They simply apply language skills without reading history books, which yields no results. The interpretation should be in the context of materials found in the excavation site. The interpretation should be grounded in the earth.

Yajnadevam has already built a modular house, just like Elan Musk's modular home, and is trying to place it in the graveyard without any foundation. Archaeologists believe in building from the foundation, with hard facts of materials found through excavations. Yajnadevam has already built a house in the sky and is trying to place it on a foundation. He has an imaginary house called 'Rig Veda' and tries to place it in the cemetery. I don't know how long he will succeed in his efforts.

Logogram vs logo syllabic interpretation.

There is a fundamental flaw in Yajnadevam's work. Indus scripts are written ideographically, said Iravatham Mahadevan, which is supported by the work of Bahata Ansumali. However, Yajnadevam simply brushes away the work of Mahadevan and does not say anything about the work of Bahata Ansumali. (2) Yajnadevam ignores their work and uses a logo-syllabic interpretation of Indus symbols—the same logo graphic interpretation used by many decipherers, which failed to yield any result.

The cryptogram theory will apply only in a phonetic script; it does not apply to the pictorial script like the hieroglyphics of Egypt. Yajnadevam tells this point in his video itself. Indus script is an ideogram like Egyptian hieroglyphics, and cryptography is not fit for deciphering it.

Page 6, line 196

Yajnadevam says the frequency analysis has failed. I disagree with his observation. In my practical experience, I have worked with Mahadevan's frequency analysis table, which yielded substantial information. I will say that the frequency distribution model has succeeded. This frequency model of Mahadevan and Sundar substantiates my research work. (3) (4)

Page -8, line 304

Yajnadevan brushes away Parpola also. Yajnadevam states that the 'Bangle' symbol, as Parpola explained, does not have any justification. I have read Parpola's book and find that his identification of the bangle is correct, and he has given a detailed discussion on that issue. Parpola has concluded that the bangle symbol means 'protection' (Valai Kappu). However, the conclusion of "protection" is wrong, and the bangle symbol perfectly tallies with the goddess Kali'.

Chicken in Indus Valley Civilisation

Page -9, line 328

Yajnadevam says there was no evidence of chicken in the Indus Valley civilisation (IVC); chicken was domesticated in Thailand 300 years after the IVC period. This statement is meaningless. The Indus symbols clearly show chickens which were slaughtered in sacrifice. As far as fixing the date for

domestication is a tricky issue. Getting evidence may be difficult, but it does not mean chicken was not domesticated in IVC.

Further, there is no need for the chicken to be domesticated. It can be a wild one also. I live in a forest area near Kodaikanal, Tamil Nadu, where wild chickens are endemic. I have seen people quickly catch wild chickens with the help of a mere 'wire loop'. Indus people were not full-time farmers; they were hunter-gatherers also and could have easily gotten wild chickens. Egyptian tomb paintings show the wide variety of wild birds and catching of geese. It does not mean geese must be domesticated; it can also be wild. Hunting scenes are a common theme in Egyptian tomb paintings; the same scenes apply to the Indus riverbanks.

Para 2.5.3 -- Page -9, line 357

Yajnadevam states that many earlier decipherments were without grammar, and his research has yielded grammar. It is difficult to apply some grammar to primitive scripts such as the Indus script. Any written script starts with consonants and without vowels. Vowels develop only in the later period. Grammar comes much later in the development of a language. For example, panini's grammar appears only in 6 th century BC. But Yajnadevam says there is grammar in the Indus script. How is that possible? IVC flourished from 2500 BC to 2000 BC, and Panini's grammar appeared 2000 years later. But Yajnadevam is casually skipping the 2000-year gap.

Proto Indo-European (PIE) language Vs Sanskrit

It is wrong to say that Sanskrit existed during the IVC period. My research indicates that there were many Proto-Indo-European (PIE) words in usage in IVC, but that does not mean Sanskrit was in usage. It is a very crude way of describing the situation. Scholastic work should not nomenclature these PIE languages as Sanskrit. The Wikipedia article fixes the date as Sanskrit from 1500 BC to 1200 BC, but no concrete evidence exists. Even if that period is correct, there is a gap of 500 years. Hence, using the word Sanskrit for the Indus script is inappropriate; using the term PIE is the proper way of expressing it.

I have also used the word Sanskrit instead of PIE language in my book; I thought I was making it easy for the commoner to read. Now, I find that experts are increasingly scrutinising my book. I request that you apply the word PIE instead of Sanskrit in my book wherever it appears.

Page -10, table -1

Yajnadevam correlates Cherokee symbols with Indus symbols and says there is no meaning. It is a nonsense correlation. You can correlate Indus script symbols to Egyptian hieroglyphics or Middle Eastern scripts. But correlating the Cherokee symbols with American Indian symbols is nonsense. (Cherokee were one of the red Indian tribes of North America).

Take the case of the "Kur" symbol of Sumeria [ ]. It means the triple mountain [ ], which means mountain top and means the netherworld. (5) The same symbol appears in IVC with the same meaning; it is a lifeline in understanding the Indus script. This is one of the symbols we got from Sumerian cuneiform; there are a few other standard symbols. Read my book 'Indus Symbols Dictionary' for more information. (6) Yajnadevam is rejecting that minimum advantage also. He cuts down all the supporting roots of a tree and tries to grow a new tree, the 'Rig Veda' in the cemetery.

Rosetta stone of Indus script

I found many Egyptian hieroglyphs tally with the Indus script during my decipherment work. Many Indian scholars have not looked into this aspect of hieroglyphs because it involves learning an ancient language which is not in use. I benefited from modern-day internet service and digitised versions of Egyptian hieroglyphic dictionaries. I used the dictionary method to correlate these two scripts and found nearly 32 cases. I have listed those common words in a separate article. Please read the article,' Egyptian Hieroglyphic Influence on Indus Script' for more information. (7) I call this table the Rosetta stone of the Indus script. It satisfies the long-felt need for a bi-lingual inscription.

Determining the language

Page 10, para 2.7 (line -388)

Paragraph 2.7 of the research paper discusses the language of IVC people. Yajnadevam concludes that the Indus script language was Sanskrit, brushing away the possibility of Dravidian languages. My work shows a definitive influence of Egyptian hieroglyphics on Indus script. I call this Egyptian influence a Dravidian component. That means the Indus script was a composite language, not merely a PIE language. Hence, his interpretation, based purely on the Sanskrit language, is unacceptable. Practically also, in my initial period of deciphering work of the Indus script, I used some Sanskrit words and got some results. However, it stopped working. Later, I started using Egyptian

hieroglyphics, and then only the complete picture emerged. So, I conclude that reading the Indus script without using the hieroglyphic component is very difficult.

Dravidian language as the candidate (para 2.8.1)

In this paragraph, Yajnadevam discusses Steve Bonta's research work. He says the Indus inscriptions exhibit multi-stem compounding, which is characteristic of the Sanskrit language, and the possibility of the Dravidian language is ruled out. It may be correct if the Indus script had been a phonetic one, but the Indus script was an ideogramic one, and the argument of multi-stem compounding is not applicable here.

Reading Indus script as a Dravidian language using the dictionary method (Lines -443 – 457)

He discusses reading the symbol and [UUU] combinations in these lines. He states that no such words are in the Dravidian dictionary and that there is no meaning for those symbols repeated three times. The problem comes because he is reading it phonetically, whereas I have repeated many times that the script is written in ideograms, and there is meaning for this triplet. This [U] U symbol indicates the word the sacrifice pot in which the sacrificed animal's blood was kept for offering; the word 'kavu' implies sacrifice. When kavu is repeated three times, it indicates sacrifice meant for three entities, one for Pithru and two gods. (8)

The perennial problem is the absence of horses in Indus seals.

This is a chronic problem; Indus seals do not show any horse figure, whereas Rig Veda mentions the 'horse' many times. I also faced the same situation many times because I am also an advocate of the presence of PIE language in IVC. How will it be possible for the PIE language to exist without the presence of a physical horse? Read my article, 'Absence of horse in IVC Explained,' for more information. (9) I support the idea of David Reich that Indo-European (IE) people entered India in two waves, first in 4000 BC and second in 2000 BC, and the IVC period falls between these two waves. (10)

The first wave of IE people was farmers from Iran; the latter was herders from central Eurasia's steppe. The Iranian farmers likely spoke the PIE language but were unaware of the horses. You find Vedic rituals and language in IVC but no horse. I hope this will explain the situation.
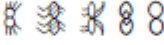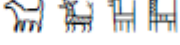
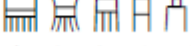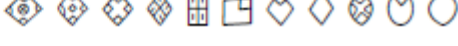## Indus/ Brahmi inscriptions (Para 2.8.3)

In this paragraph, Yajnadevam states that the Indus script evolved into a later-day Brahmi script. This is not acceptable to me. The Brahmi script appeared first around the period of King Asoka (around 300 BC); there was a distinct gap of 2000 years between these writing systems. Many invaders entered India during this period. Those invaders might have brought in a new writing system based on the Aramaic writing system. This Aramaic and other Middle Eastern systems are a total revolution in the idea of the script; it can be nowhere compared to the primitive writing system of IVC. I also find no evidence of a link between Indus and Brahmi inscriptions.

Stylistic and geographic variants (para 2.11.2)

In this paragraph, he has classified various sign variants. He has not followed the earlier grouping made by Mahadevan or Parpola; he is following a new grouping altogether, maybe those created by Steve Bonta. However, there are distinct changes in these groupings. The table -3 of Yajnadevam is reproduced below for easy reference:

Table 3. Six extensively stylized signs

Sign name	Stylized variants
Barley merchant	帝 帝 帝 帝 帝 大 木 犬 犬
Spider/Insect	𝔑 𝔑 𝔑 8 8
Spider/Insect	⚹ 𝔸 ⋈ ⋉ ⋈ ⋈
Horse/Equid	🐎 🐎 🐎 🐎
Comb	⊞ ⊞ ⊞ ⊓ ⊓
Leaf	⚘ ⚘ ⌂ ⌂ ⌒ ⌒ □
Chariot	◈ ◈ ◇ ◈ ⊞ ⊡ ◇ ◇ ⊗ ○ ○

First is barley merchant –[⚲]- I have classified this symbol as a messenger god. Yajnadevam specifically says he was a barley merchant. Nine variants are classified under this group; the first six glyphs fall into a single category; however, the remaining three do not fall into this category. The last three glyphs have different meanings.

It looks like a bee to me; it has only four legs, which is not scientifically accurate. However, Yajnadevam is calling it a spider; so far, none of the decipherers have classified it as a spider. I disagree with his interpretation.

This symbol indicates the word 'karkida' (crab), one of the most widely used symbols in the Indus script. It means the karkida month; in this month, many rituals are done for dead people. However, Yajnadevam calls it a spider; this single interpretation destroys the core scheme of the Indus priest.

Horse/Equid

The above picture shows a 'horse' as per Yajnadevam's interpretation.

This symbol [ ] looks like a goat to me, but Yajnadevam says it is a horse. See the list given by Yajnadevam; the first glyph looks like a dog; the remaining glyphs also have erect tails. Is it possible for a horse to have an erect tail? Only a goat and a dog have an erect tail. This grouping goes away from common sense. It is a deliberate attempt to introduce horses into the Indus Valley civilisation. This is what Rajaram did in the year 2000. After much criticism, he stopped his nefarious activity. I think Yajnadevam is following in Rajaram's footsteps and trying to reintroduce horses into IVC.

This symbol looks like a chair to me; Yajnadevam calls it a 'comb'; the last two glyphs are different, yet he classifies them into a 'comb category'.

I call this symbol a Vedic Yajna pit, whereas Yajnadevam calls it a chariot; I am not sure why it is being called a chariot.

This is the basis for his new cryptographic puzzle. A cryptographic puzzle requires a basic code formula based on which further encryption will be made. This encryption formula is called "Cypher". Based on this cypher, the encryption is done, and decryption can only be made using this cypher. This is the same old technique used by Kalyanaraman.

Who is Kalyanaraman?

Kalyanaraman is a retired bank officer from Chennai, Tamil Nadu, who has been involved in the study and deciphering of the Indus script for a long time; he has also published many books on this issue. His idea is that the Indus people were some kind of guild with a combination of traders, metallurgists, and smiths. He has used this 'cypher' method for a long time, bringing out numerous ideas about metal, smelting processes, and trading in metal linked to Indus seals. According to him, these smiths used these seals to convey their trade-related ideas to other smiths. But his interpretation is not widely accepted so far. Yajnadevam follows the same steps as Kalyanaraman except for a slight change; Yajnadevam uses 'Rig-Veda" instead of metallurgical principles.

Results (para-3)

The final results are tabulated in para no -3. However, of the six tables he mentioned, table 6 is missing; most probably, it merged with table 5. I am not sure; it is only an assumption.

Sign values and their reconstructed names.

(para 3.10 (page-21)

In this paragraph, Yajnadevam gives various phonetic values to various signs (symbols). Table 5 or 6 of Yajnadevam is reproduced here for easy reference.

Phoneme	Reconstructed Sign Name			Sign Glyphs
अ a	अयुग	ayuga	one[VarBrS]	'
	आयु	āyu	man[RV]	夫 夭
	अग	aga	mountain[Kirat]	⚌
	अङ्क	aṅka	curve/hook[RV]	))) 𝄾) (
	आजनि	ājani	stick[AV]	Ⅰ1 ♪ 日
	अजशृङ्गी	ajaśṛṅgī	goat's horn[AV]	⅄ ⅄
आ ā			repeated अ a	ᚼ ⧴ ⧵ ⧶ 夫夭 Ⅰ'

See how he had assigned various symbols just for a single phonetic value of 'a'. Nearly seven unrelated glyphs have been clubbed into a single phonetic value of 'a'. In the same way, he had clubbed together many symbols for different alphabets and vowels.

In your elementary school days, you would have studied the basic alphabet book.

A- For -- apple
B- For -- ball
C- For -- cat
D- For -- dog
E- For -- elephant ---like that

However, the basic alphabet book of Yajnadevam reads in the following way

A – for -- ayuga, aju, aga, anka, ajani and ajasrngi

B-for -bhaksapattri, bhasatra

C -for – Chatur, Chattra

D for - dhanvan, dhana, dantra, dhanakh

Yajnadevam is not giving just one variable; he is using multiple variants. In a study of statistical experiments, the number of variants should be reduced; then, only a meaningful interpretation can be made. If there are too many variants, the basic experiment will be flawed. This is what any basic scientific study says, and Occam's razor also told the same principles many centuries ago. Yajnadevam does not follow any kind of scientific principles. I thought statistics could be one of the subjects of cryptography papers. I just want to know whether he studied statistics in the college curriculum.

If anybody follows this alphabet book, he will be confused. This is what Yajnadevam is calling a 'cypher'. I don't know what benefit will come out of this cypher. Using this cypher, you can link to some Japanese and Chinese slogans, and you can also link the words in the Indian constitution. Fortunately, Yajnadevam is reading only Rig-veda.

Line strokes and numeric signs (para 4.3)

Generally, the line strokes were read as numbers. Whereas Yajnadevam reads them as phonetic values, the first letter of the numeral is taken as the phonetic value of that number, which is a strange interpretation. The table 8 of Yajnadevam is reproduced as such for reference:

Table 8. Numeric and pictorial line stroke signs

Numeric from digits 1-10										Pictorial					
'	"	‖	⫴	⫶	⫶	⫸	⫸	⫸⫸	⫶⫶		‖	‖‖	⫶	‖	⫸
अ	व	त	च	प	ष	स	अस्	न	द	अ	स	ज	न	ष	ज
a	v	t	c	p	ṣ	s	as	n	d	a	s	j	n	ṣ	j

Number one is called 'ayugu' and' eka' in Sanskrit, so there are two letters for number one, 'a' and 'e. '

Number two is called 'Vi' in Sanskrit - so number two represents the letter 'V'.

Number three is called 'tra' in Sanskrit – so number three represents the letter 't'.

Yajnadevam says there is no number eleven because IVC people used a decimal system. (line 822) . I don't understand the link between the absence of eleven and the decimal system.

Number twelve, ⫸⫸ he describes it as rain; he concludes that the Indus people did not count beyond ten. This interpretation is heartrending and beyond common sense.

Religious continuity (para 4.18)

Yajnadevam says there was religious continuity from the IVC to the later Vedic period. He states that all Vedic gods were present in IVC. But my observation reveals only 'Rudra' and 'Varuna'. No other Vedic god was present in IVC.

Long inscriptions with their scriptural references (para-5, 6,7 and 8)

Finally, Yajnadevam has consolidated all his interpretations in these paragraphs, from page 33 to page 89; 56 pages and more than 500 inscriptions have been read. Analysing all these interpretations is time-consuming. Hence, a general observation is made. We have to counter the method used by Yajnadevam.

Mahadevan had worked throughout his life and could not decipher more than 40 – 50 inscriptions; the same is the situation for Asko Parpola; he is still working on this issue and cannot make any breakthrough. I have worked on this issue for the past twenty years and have some reasonable interpretations.

How is it possible for Yajnadevam to make this fantastic claim? Within one or two years of working. What he has done is reverse engineering the Monier-Williams dictionary. While, all other decipherers used the foundation-to-top building approach. Yajnadevam is using a modular house approach. He has already built a 'Rig Veda' module, forcing in on Indus inscriptions.

Reverse engineering

What is reverse engineering? Those countries that do not bother with intellectual property rights and patent rights copy many of the machines made by Western nations. That copying process is called reverse engineering. It is very easy to copy and remodel it.

What Yajnadevam has done. First, he has taken some commonly used Sanskrit words and fit those words to frequently used Indus signs. It will easily fit in the beginning for a few words; after that, it will not work. This is what happened to all decipherers. That is where all earlier interpreters have failed. They can interpret five to ten words. After that, they are stuck, and no progress can be made. The same thing happened to me; after a few words, I could not progress when I tried to decipher the script phonetically.

Yajnadevam has increased the number of variables, that is, the symbols representing each of the alphabets and vowels. (Tables 5 and 6)(table 6 is missing) In his cypher, in this way, he will be able to build any word with ease and comfort. For that reason, he gives phonetic values even to numerals. He introduced vowels that are not in the Indus script. He built up the cypher this way and is ready to show many Sanskrit words in the Indus inscriptions.

Indus seal inscriptions are short, so what is expected to be written on such a small, brief inscription? Just like a coin or postal stamp, the name of the country, the value of the coin/ stamp, and some central logo. Name of a person or king and some nouns, not verbs. That is the research outcome of Bahata Ansumali. But what appears in Yajnadevam's work? Philosophical words, high-flying verbs and adjectives, is it possible for a verb to appear alone? No, there is no chance and no meaning if it stands alone. But in his work, verbs/ adjectives/adverbs all stand alone without yielding any cohesive meaning.

8.111. ↑ · स · s *from* शिखर *śikhara variant of mountaintop* ∧

Seal-Id	Inscription	Sanskrit		Translation
M-264a	⋃↑↑	शहम्	saham	mighty[RV]
L-98A	⋔⋇⊓↑↑	सहत्मन्	sahat-man	mighty[RV]
M-1709a	⊞↑⋇"◇	रवमहम्	rava-maham	mighty[RV] Roarer[√रु + अच्]

For example, in para 8.111 above, the word 'mighty' appears alone. Is there any use if this adjective appears alone? It makes sense if it appears as 'mighty god or mighty warrior. The third example of him that makes sense is that of a 'mighty roarer'. There is no sense in the other two interpretations.

8.39. ⋨ · श · s *from* शाखर *śākhāra squirrel*

Seal-Id	Inscription	Sanskrit		Translation
H-1080a	⋃⋇⋨	शाण	śāṇa	hempen[ŚBr]
M-1829a	⋿⋃⋨	शनि	śani	Saturn[R]
H-1830a	⋇⋨	शय	śaya	sleeping[Dhātup]
L-35A	⋃⋨⋇	मसन	masana	transformation[√मस् + ल्युट्]

See the above table; the word Shana means jute (noun), and when it is written as 'Sana', it means any product made of hemp (adjective). What is the use of the adjective standing alone? No use. Even if you consider the shana as a noun, no purpose will be served. What is the purpose of the word jute standing alone? Further, jute was not popular in the Indus Valley; it was cultivated only in the Bengal region.

8.38. ⋔ · व · v *from* वर्ती *vartī lamp wick*

Seal-Id	Inscription	Sanskrit		Translation
M-925A	⋮⋔⋮	नवन	navana	praising[Nalod]
M-1689a	⋇⊙⋔	वश्य	vaśya	dutiful[MBh]
H-194	⋃⋎⋔⋇	मवरं	mavaraṃ	multitudes[Buddh]

See the above table; the verb 'praising' appears alone. Does it make any sense? No sense. It makes sense if it is written as 'praising Rudra'. Similarly, the word 'dutiful' is also an adjective; there is no sense if it stands alone. The word 'multitude' is a noun. Even then, it does not make any sense when it stands alone.

Yajnadevam has done a puzzle game to entertain you, but it is not an attempt to break the Indus script code. I am also requesting many software professionals to build a game based on the Indus script to popularise this Indus deciphering work, but none is willing to do so because of the cost involved. Yajnadevam has built a free cypher puzzle game for you to enjoy.

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